

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A linking information making device comprising:
a service search server comprising:

a service list acquisition section which acquires a service list expressing respective services each of which execute predetermined processings on document data, the respective services being provided by a plurality of currently-available service processing devices;

a client terminal in communication with the service list acquisition section, the client terminal comprising:

an interface information acquisition section which acquires, for each of the currently-available services being provided, a respective piece of interface information including a method by which the corresponding predetermined processing is started, and

a linking information making section which makes linking information to be used for linking the predetermined processings based on the interface information which has been acquired by the interface information acquisition section, and transmits the linking information, the linking information including information to be displayed on respective screens of one or more of the currently-available service processing devices and to be selected by a user operating one of the screens when the user instructs to start linking the predetermined processings; and

an instruction sheet management server comprising:

a management section which stores the transmitted linking information and further transmits the stored linking information to the one or more of the currently-available

service processing devices for displaying on the screen based on a request from the currently-available service processing devices,

wherein the client terminal further comprises a display which displays a first window including a first icon corresponding to first interface information acquired by the interface information acquisition section, a second window including a second icon corresponding to a linking pattern, and a third window including linked first and second icons dragged and dropped from the first and second windows by the user, and

the linking information making section makes the linking information in accordance with the linked first and second icons in the third ~~window~~ window and makes the linking information without specifying a service processing device.

the interface information includes a predetermined parameter restriction rule which restricts an input and an output to a particular device.

the linking information includes a control structure, a logical operation and an arithmetic operation.

2. (Currently Amended) A linking information making method comprising:
acquiring a service list expressing respective services, which execute predetermined processings of document data, the respective services being provided by currently-available service processing devices;

further acquiring pieces of interface information corresponding to the respective currently-available service processing devices from the respective currently-available service processing devices, the interface information including a method by which the predetermined processing is started;

displaying the pieces of interface information;

making linking information to be used for linking the predetermined processings based on the acquired pieces of the interface information, the linking information

including information to be displayed on a screen of one or more currently-available service processing devices and to be selected by a user operating the screen when the user instructs to start the predetermined processings; and

transmitting the linking information to the one or more currently-available service processing devices based on a request from the one or more currently-available service processing devices,

wherein the pieces of interface information are displayed as icons,

the step of making linking information includes (i) linking selected ones of the displayed icons in accordance with a user operation, the user operation including dragging and dropping the selected ones of the icons corresponding to respective pieces of interface information to generate linked icons, and (ii) making the linking information in accordance with the linked ~~icons~~ icons and without specifying a service processing device,

the interface information further including a predetermined parameter restriction rule which restricts an input and an output to a particular device,

the linking information further including a control structure, a logical operation and an arithmetic operation.

3. (Currently Amended) A computer-readable recording medium that stores a program for controlling a computer to execute a processing for making linking information, the program including instructions for controlling the computer to execute:

acquiring a service list expressing respective services, which execute predetermined processings of document data, the respective services being provided by currently-available service processing devices;

further acquiring pieces of interface information corresponding to the respective currently-available service processing devices from the respective currently-

available service processing devices, the interface information including a method by which the predetermined processing is started;

displaying the pieces of interface information;

making linking information to be used for linking the predetermined processings based on the acquired pieces of the interface information, the linking information including information to be displayed on a screen of one or more currently-available service processing devices and to be selected by a user operating the screen when the user instructs to start linking the predetermined processings; and

transmitting the linking information to the one or more currently-available service processing devices based on a request from the one or more currently-available service processing devices,

wherein the pieces of interface information are displayed as icons,

the step of making linking information includes (i) linking selected ones of the displayed icons in accordance with a user operation, the user operation including dragging and dropping the selected ones of the icons corresponding to respective pieces of interface information to generate linked icons, and (ii) making the linking information in accordance with the linked icons and without specifying a service processing device,

the interface information further including a predetermined parameter restriction rule which restricts an input and an output to a particular device,

the linking information further including a control structure, a logical operation and an arithmetic operation. ~~icons.~~

4. (Previously Presented) A document processing system, comprising:

the linking information making device according to claim 1 which acquires the service list transmitted from a search device and the pieces of the interface information from the currently-available service processing devices via the search device; and

a plurality of currently-available service processing devices which provide services for executing predetermined processings of document data and transmit the pieces of the interface information to the search device,

the search device provided with:

a service information storage section for storing the pieces of the interface information which have been transmitted from the currently-available service processing devices;

a search section for searching services corresponding to services, for which search has been requested, using the pieces of the interface information which have been stored in the service information storage section; and

a transmission section which transmits the service list based on the search results of the search section.

5. (Previously Presented) A document processing system according to claim 4, wherein the transmission section of the search device transmits the service list expressing services which are services provided by the currently-available service processing devices and which correspond to services for which search has been requested, to the linking information making device.

6. (Previously Presented) A document processing system according to claim 4, wherein the currently-available service processing devices transmit pieces of input information and pieces of output information on services, service names, and service information location as the interface information.

7. (Previously Presented) A document processing system according to claim 4, wherein the interface information acquisition section of the linking information making device acquires pieces of service information location for accessing the respective currently-available service processing devices, from the search device, and acquires pieces of interface

information from the currently-available service processing devices based on pieces of the acquired service information location.

8-13. (Canceled)

14. (Previously Presented) A linking information making device according to claim 1, wherein the linking information is a file in an XML format.

15. (Previously Presented) A linking information making method according to claim 2, wherein the linking information is a file in an XML format.

16. (Previously Presented) A computer-readable recording medium according to claim 3, wherein the linking information is a file in an XML format.

17. (Previously Presented) The linking information making device according to claim 1, wherein the management section stores a plurality of the linking information as a plurality of workflows.

18. (Previously Presented) The linking information making method according to claim 2, further comprising storing a plurality of the linking information as a plurality of workflows.

19. (Previously Presented) The computer-readable recording medium according to claim 3, further comprising storing a plurality of the linking information as a plurality of workflows.

20. (Currently Amended) A computer-readable recording medium that stores a program for controlling a computer to execute a processing for making linking information, the program including instructions for controlling the computer to execute:

acquiring, from currently-available service processing devices through a network, pieces of service information expressing different types of processings executed by the currently-available service processing devices on document data;

displaying the pieces of service information on a display;

making linking information that links the processings to be executed by the currently-available service processing devices as a workflow based on a user operation on the display;

storing a plurality of pieces of the linking information as a plurality of workflows in a storage unit, and

transmitting, in response to a requirement from one of the currently-available service processing devices, the plurality of pieces of the stored linking information through the network to the one of the currently-available service processing devices so that a list of the plurality of workflows are displayed on a screen of the one of the currently-available service processing devices for a user selection,

wherein the pieces of service information are displayed as icons,

the user operation on the display includes dragging and dropping icons corresponding to the pieces of service information corresponding to the processings to be executed to generate linked icons, and

the step of making linking information includes making the linking information in accordance with the linked icons and without specifying a service processing device, and

one of the workflows is started based on the user ~~selection~~ selection,

the user operation includes a predetermined parameter restriction rule which restricts an input and an output to a particular device,

the linking information further including a control structure, a logical operation and an arithmetic operation.

21. (Previously Presented) The computer-readable recording medium according to claim 20, wherein the linking information is a file in an XML format.

22. (Previously Presented) The computer-readable recording medium according to

claim 20, wherein the transmitting comprises transmitting the plurality of pieces of the linking information in response to a request from one or more of the currently-available service processing devices.

23. (Previously Presented) The computer-readable recording medium according to claim 20, wherein the service information includes a service list and pieces of interface information corresponding to the respective currently-available service processing devices.

24. (Currently Amended) A document processing system, comprising:

(1) a linking information making device which acquires a service list transmitted from a search device and pieces of interface information, the interface information further including a predetermined parameter restriction rule which restricts an input and an output to a particular device, from a plurality of currently-available service processing devices via the search device, the linking information making device comprising:

a service search server comprising:

a service list acquisition section which acquires the service list expressing respective services each of which execute predetermined processings on document data, the respective services being provided by the plurality of currently-available service processing devices;

a client terminal in communication with the service list acquisition section, the client terminal comprising:

an interface information acquisition section which acquires, for each of the services being provided, a respective piece of the interface information including information about a method by which the corresponding predetermined processing is started, and

a linking information making section which makes linking information to be used for linking the predetermined processings based on the interface information which has been acquired by the interface information acquisition section, and transmits the linking information, the linking information including information to be displayed on respective screens of one or more of the currently-available service processing devices and to be selected by a user operating one of the screens when the user instructs to start linking the predetermined ~~processings;~~processings, the linking information including a control structure, a logical operation and an arithmetic operation; and

an instruction sheet management server comprising:

a management section which stores the transmitted linking information and further transmits the stored linking information to the one or more of the currently-available service processing devices for displaying on the screen based on a request from the currently-available service processing devices,

wherein the client terminal further comprises a display which displays a first window including a first icon corresponding to first interface information acquired by the interface information acquisition section, a second window including a second icon corresponding to a linking pattern, and a third window including linked first and second icons dragged and dropped from the first and second windows by the user, and

the linking information making section makes the linking information in accordance with the linked first and second icons in the third window and makes the linking information without specifying a service processing device;~~window;~~

(2) a linking information management server which saves a plurality of linking information made by the linking information making device;

(3) a client server which includes a GUI displaying a plurality of linking information saved in the linking information management server, selecting one of a plurality of linking information and inputting at least one parameter into selected linking information;

(4) a linking processing server which executes the linking information inputted the parameter; and

(5) a plurality of currently-available service processing devices which provide services for executing processings of document data in accordance with the linking information executed by the linking processing server and transmit the pieces of the interface information to the search device,

the search device provided with:

a service information storage section for storing the pieces of the interface information which have been transmitted from currently-available service processing devices;

a search section for searching services corresponding to services, for which search has been requested, using the pieces of the interface information which have been stored in the service information storage section; and

a transmission section which transmits the service list based on the search results of the search section.